

WHAT IS CLAIMED IS:

1. A gas turbine engine component comprising a perforate metal wall having pores covered at first ends thereof by a thermal barrier coating disposed over a first surface of said wall.

2. A component according to claim 1 wherein said pores are open at opposite second ends thereof along an opposite second surface of said wall.

3. A component according to claim 2 devoid of a bond coating laminated between said wall first surface and said thermal barrier coating.

4. A component according to claim 2 further comprising a bond coating laminated between said wall first surface and said thermal barrier coating.

5. A component according to claim 4 wherein said bond coating extends inside said pores.

6. A component according to claim 5 wherein said bond coating lines said pores, and said thermal barrier coating extends inside said bond coating lined pores.

7. A component according to claim 6 wherein said bond coating fully lines said pores between said first and second ends and forms an open channel extending from said second surface to said thermal barrier coating covering said pore first ends below said first surface.

8. A component according to claim 7 wherein said pores extend perpendicularly through said wall.

9. A component according to claim 6 wherein said pores extend perpendicularly through said wall.
10. A component according to claim 6 wherein said pores are arranged in a uniform pattern having a pitch-to-diameter ratio within a range of about two to ten.
11. A component according to claim 10 wherein said pores have a diameter up to about 250 microns.
12. A component according to claim 6 further comprising a plurality of film cooling holes extending through said wall and thermal barrier coating.
13. A component according to claim 12 wherein said pores are smaller than said film cooling holes.
14. A component according to claim 6 wherein said bond coating comprises aluminide.
15. A component according to claim 14 wherein said thermal barrier coating comprises yttria-stabilized zirconia.
16. A gas turbine engine combustor liner comprising:
a metal wall having opposite first and second surfaces and a multitude of pores extending through said wall between opposite first and second ends of said pores;
a bond coating covering said first surface and lining said pores; and
a thermal barrier coating covering said bond coating along said first surface and covering said pore first ends, with said pore second ends remaining open.

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17. A turbine nozzle vane comprising:
a metal wall having opposite first and second surfaces and a multitude of pores extending through said wall between opposite first and second ends of said pores;
a bond coating covering said first surface and lining said pores; and
a thermal barrier coating covering said bond coating along said first surface and covering said pore first ends, with said pore second ends remaining open.
18. A turbine nozzle band comprising:
a metal wall having opposite first and second surfaces and a multitude of pores extending through said wall between opposite first and second ends of said pores;
a bond coating covering said first surface and lining said pores; and
a thermal barrier coating covering said bond coating along said first surface and covering said pore first ends, with said pore second ends remaining open.
19. A turbine blade comprising:
a metal wall having opposite first and second surfaces and a multitude of pores extending through said wall between opposite first and second ends of said pores;
a bond coating covering said first surface and lining said pores; and
a thermal barrier coating covering said bond coating along said first surface and covering said pore first ends, with said pore second ends remaining open.
20. A turbine shroud comprising:
a metal wall having opposite first and second surfaces and a multitude of pores extending through said wall between opposite first and second ends of said pores;

a bond coating covering said first surface and lining said pores; and
a thermal barrier coating covering said bond coating along said first surface and covering said pore first ends, with said pore second ends remaining open.

21. A gas turbine engine exhaust liner comprising:

a metal wall having opposite first and second surfaces and a multitude of pores extending through said wall between opposite first and second ends of said pores;

a bond coating covering said first surface and lining said pores; and

a thermal barrier coating covering said bond coating along said first surface and covering said pore first ends, with said pore second ends remaining open.

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